

REMARKS

The Office Action dated October 5, 2004 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1, 2, 4, 6, 8, 9, and 13 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Support for the claim amendments may be found at least on page 10, lines 1-8 of the specification. New claims 15 and 16 have been added. No new matter has been added. Claims 1-16 are currently pending in the application and are respectfully submitted for consideration.

In the Office Action, claims 1-3, 8-10, and 12-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers (U.S. Patent No. 6,539,237) in view of Haga (U.S. Patent No. 6,366,576). The Office Action took the position that Sayers teaches all of the elements of claim 1, with the exception of: connecting the gatekeeper to the gateway by a switched packet path, transmitting the candidate list to the gatekeeper for handover, and a selection means for selecting one of the alternative cells in the candidate list. The Office Action then relies upon Haga as allegedly curing these deficiencies in Sayers with respect to claim 1. Additionally, the Office Action alleges that Sayers discloses all of the elements of claim 8, with the exception of a target gateway for handover. The Office Action again relies upon Haga to cure this deficiency in Sayers with respect to claim 8. The rejection is respectfully traversed for the reasons which follow.

Claim 1, upon which claims 2-7 are dependent, recites a cellular communications network comprising a plurality of controllers for controlling cells in the cellular communications network. The controllers are arranged to receive RF information from at least one mobile station in the network. At least one gatekeeper may be connected to the controllers by a switched packet communication path. Each controller includes means for generating a handover required indication for a call in which the controller is engaged and packet generating means for generating a packet addressed to the gatekeeper. Control information comprises a candidate list of alternative cells to which the call could be transferred. The gatekeeper includes selection means for selecting one of the alternative cells in the candidate list and packet generating means for generating a packet for sending a handover request for handing over the call to one of the alternative cells.

Claim 8, upon which claims 9-14 are dependent, recites a method of effecting handoff of a call in which at least one mobile station is engaged in a cellular communications network comprising a plurality of cells. The method includes the steps of receiving from the mobile station a handoff required indication indicating that handover is needed from a source controller to a target controller, and formulating at the source controller a packet addressed to a source gatekeeper, the packet including control information comprising a candidate list identifying possible alternative controllers. The method also includes the step of determining, at the source gatekeeper, to which one of the target controllers within the candidate list a handoff request should be forwarded and formulating a packet for forwarding to the target controller.

As will be discussed below, Sayers and Haga, whether viewed singly or combined, fail to disclose or suggest all of the elements of the claims, and therefore fail to provide the features discussed above.

Sayers discloses a communication system formed by a private network that includes a private wireless network. The communication system includes a public wireless network using a public wireless protocol, such as GSM, and includes public networks, such as PSTN, ISDN and the Internet, using a wired protocol, such as IP. The private network also includes a local area network (LAN) and the private network connects to the public networks using a wired packet protocol, such as IP. The public and private wireless networks operate with the same public wireless protocol, such as GSM, and the private wireless network additionally operates with a wired packet protocol, such as IP. The communication system permits users to operate freely in both public and private wireless networks using standard mobile stations while achieving high private network data rates. The communication system uses normal wireless handsets or other mobile or fixed stations without need for any modifications.

Haga discloses a method for routing calls from a terminal in a first telecommunication network to any terminal in an external telecommunication network. At least one routing entity is provided to route the call through a gateway giving the most optimal route. Interworking calls are automatically routed from packet-networks through the gateway giving the most cost effective charge by using a routing table which is automatically updated each time a new gateway is introduced into the network.

Applicants respectfully submit that the combination of Sayers and Haga fails to disclose several elements of the presently pending claims. As previously stated, Sayers discloses a communication system with a private network and a private wireless network. The Office Action admitted that Sayers does not disclose or suggest “a gatekeeper connected to the gateway by a switch packet path” and “transmitting of candidate list to gatekeeper for handover.” According to figure 4 of Sayers, the private wireless network consists of a plurality of private base stations connected to a hub, which in turn is connected to a gatekeeper. The hub is also connected to a public network 43 via a gateway 42-2. Column 27, lines 50-67, describe a method for a handover from a serving private base station to a target private base station. That method is very different from the method claimed in the present invention. According to the method disclosed in Sayers, if it is decided that a handover is required then the address of a new base station is determined by sending a location request to the gatekeeper. The gatekeeper returns the address of the target base station in a location confirmation message. Once the serving base station knows the address of the target base station, it may forward a handover message requesting resources from the target base station. The target base station then responds with a handover acceptance message.

Therefore, according to Sayers, if a handover is refused by the target base station then the serving base station would have to send a new location request to the gatekeeper for the address of an alternative target base station. The claimed invention, however, solves this problem by sending a candidate list to the gatekeeper with a list of alternative

cells, and allowing the gatekeeper to select a cell and request the handover. Consequently, further communication between the gatekeeper and the gateway is not required.

Furthermore, Haga fails to cure the deficiencies in Sayers as discussed above. Haga, like Sayers, fails to disclose or suggest transmitting a candidate list of alternative cells to the gatekeeper for handover, and that the gatekeeper includes selection means for selecting one of the alternative cells in the candidate list. The Office Action seems to equate the transmission of a candidate list of alternative cells to the updating of a routing table in Haga (Office Action, Page 3, lines 21-22). The Office Action then proceeds to argue that the selection of a cell from a candidate list corresponds to the selection of a gateway from a database containing the gateway routing table. Applicants respectfully disagree with the rationale of the Office Action.

Applicants respectfully assert that the cell selection, as recited in the present claims, does not relate to the routing disclosed in Haga. Cell selection and routing present distinct issues, and are not related in any manner. Additionally, the prior art does not disclose or suggest applying any solutions in the area of routing to that of cell selection. Further, Haga fails to disclose or suggest the selection of a cell by a gatekeeper, as recited in the present claims. Rather, Haga only discloses the selection of the most optimal routes via different gateways. The selection of optimal routes is not the same as the cell selection of the present application. Therefore, Haga also fails to disclose this element of the claims.

Applicants respectfully submit that both Haga and Sayers, whether taken individually or combined, fail to disclose or suggest providing a candidate list or acting on a candidate list. The Office Action refers to Column 3, lines 49-67 of Haga as allegedly disclosing this element of the claims. However, this section of Haga merely discloses a database pairing gateways with country codes of PSTN networks. Such a database is not a candidate list of cells for handover, nor does it correspond to one in any way. Rather, it is only a database of gateways. The Office Action also appears to refer to Column 27, lines 50-67 of Sayers as allegedly disclosing “means for generating a packet addressed to said gatekeeper and including control information comprising a candidate list of alternative cells to which the call could possibly be transferred,” as recited in claim 1 and similarly recited in claim 8. Applicants respectfully assert, however, that Sayers fails to disclose or suggest any handover candidate lists. Applicants submit that both Sayers and Haga do not disclose a controller comprising means for generating a packet that includes control information and a candidate list of alternative cells.

Therefore, for at least the reasons discussed above, Applicants respectfully submit that Sayers and Haga, whether taken individually or combined, do not disclose or suggest critical and important elements of claims 1 and 8. Sayers and Haga do not teach or suggest a candidate list of alternative cells to which a call could be transferred. They do not, when viewed singly or in combination, disclose a controller including packet generating means for generating a packet addressed to a gatekeeper which includes control information comprising the candidate list. Additionally, they do not teach a

gatekeeper including selection means for selecting one of the alternative cells in the candidate list. As such, Applicants respectfully request that the rejection of claims 1 and 8 be withdrawn.

In addition, claims 2-7 and 9-14 are dependent upon claims 1 and 8, respectively. Consequently, claims 2-7 and 9-14 should also be allowed for at least their dependence upon claims 1 and 8, and for the specific limitations recited therein.

Claims 4, 6, 7, and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers in view of Haga and further in view of Thomas (U.S. Patent No. 6,421,339). The Office Action took the position that Sayers and Haga disclose all of the elements of the claims, with the exception of the data defining network specific resource being held at each gateway. The Office Action then relies upon Thomas as allegedly curing this deficiency in Sayers and Haga. The rejection is respectfully traversed for the reasons which follow.

Sayers and Haga are discussed above. Thomas discloses a method and apparatus for completing multimedia calls over a packetized data transmission link to a roaming user located in a network foreign to the user's home network. Thomas further discloses a gatekeeper 44 and gateways 24, 32, 26 connected via buses 36 and 16, R/GW 28 and 34, and a packet data network 30. An H.323 compliant data packet network is configured such that if users roam they may register with a gatekeeper at a visited network.

Applicants respectfully submit that Thomas fails to cure the deficiencies in the primary references as discussed above. Furthermore, claims 4, 6, 7, and 11 are dependent

upon claims 1 and 8, respectively. Therefore, claims 4, 6, 7, and 11 should be found allowable for at least their dependence upon claims 1 and 8, and for the specific limitations recited therein. Thus, Sayers, Haga and Thomas, taken in combination or alone, fail to render claims 4, 6, 7, and 11 obvious.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sayers in view of Haga, Thomas, and further in view of Hannula (U.S. Patent No. 6,366,893).

Sayers, Haga and Thomas are discussed above. Hannula discloses a method and apparatus for performing electronic payment transactions between terminal equipment (100) in a telecommunication network and the other transacting party. Hannula utilizes a payment service gateway (10) through which all the payment transactions of the terminal equipments in the telecommunication network are routed. The payment service gateway allows the parties of the payment transaction to support different electronic payment protocols and performs the required protocol conversions so as to provide an end-to-end transaction.

Applicants note that claim 5 is dependent upon claim 1. In addition, Hannula fails to cure the deficiencies in Sayers, Haga and Thomas as discussed above. Thus, claim 5 should be allowed for at least its dependence upon claim 1, and for the specific limitations recited therein. Furthermore, Sayers, Haga, Thomas and Hannula, whether taken alone or in combination fail to render claim 5 obvious.

Applicants respectfully submit that the cited prior art fails to disclose or suggest critical and important elements of the claimed invention. These distinctions are more

than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-16 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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